

REMARKS

Claims 1 – 17 have been pending. Claims 12 – 17 are withdrawn from consideration. Claims 1, 3 and 11 are currently amended. Claims 9 and 10 are being canceled.

Claim 1 is hereby being amended to specify that the fluorochemical compound comprises a polymer derived from a polymerization of (a) fluorinated monomer and (b) a non-fluorinated compound, and that the fluorinated monomer is fluorinated monomer according to formula (II) or formula (III) or mixtures thereof. Basis for the amendment can be found, for example, at page 7, line 1, through page 9, line 2, and in original claim 10.

Claim 3 is being amended to specify that the fluorochemical compound is comprised in the aqueous composition in an amount of 1 to 30% by weight (basis therefor being found, for example, at page 12, lines 27 – 29).

Rejections Under 35 U.S.C. § 103

Claims 1 – 11 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,977,228 (“Mauer”) alone or in view of U.S. Patent No. 3,895,029 (“Ward”). The rejection is respectfully traversed for the following reasons.

Mauer teaches an aqueous floor finish composition comprising at least one polymeric film forming agent and a plasticizing agent. The plasticizing agent may comprise trialkyl citrates. In addition, the floor finish composition may comprise minor amounts of fluorochemical compound leveling agents.

Ward teaches coating compositions of fluoropolymer based on vinyl fluoride or vinylidene fluoride and finely divided ferric oxide, optionally containing acrylic polymer.

Applicants claim an aqueous composition comprising a fluorochemical compound and an ester derivative of an alpha-hydroxy acid. The ester derivative has a melting point of not more than 35°C and a water solubility of not more than 10% by weight at 25°C. The fluorochemical compound comprises a polymer derived from a polymerization of fluorinated monomer and a non-fluorinated compound. The fluorinated monomer is selected from the group consisting of:

fluorinated monomer according to the formula R_f-X-E (“formula II”), wherein R_f represents a perfluorinated aliphatic group, X represents an organic linking group and E represents an ethylenically unsaturated group;

fluorinated monomer according to the formula $R^1-X^1-OC(O)-C(R)=CH_2$ ("formula III"), wherein R^1 represents a perfluorinated aliphatic group, X^1 is an organic divalent linking group, and R represents hydrogen or a lower alkyl group having 1 to 4 carbon atoms; and mixtures thereof.

The Examiner has asserted that it would be obvious to select the plasticizer from the list in Mauer and use it in combination with the fluorochemical "given the art teaching the use of these ingredients." The Examiner has also asserted that it would be obvious to use the fluoropolymer of Ward in the coating composition of Mauer "given the art recognized advantages obtained by using such fluoropolymers."

The Examiner has failed, however, to present a *prima facie* case of obviousness. In order to present a *prima facie* case of obviousness, the prior art reference must teach or suggest all the claim limitations. Neither Mauer nor Ward appear to teach or suggest a fluorochemical compound comprising a polymer derived from a polymerization of (a) fluorinated monomer and (b) a non-fluorinated compound, wherein the fluorinated monomer is fluorinated monomer according to formula (II) or formula (III) or mixtures thereof.

The fluorochemical compounds of the present invention are capable of imparting water and/or oil repellency to substrates and in particular textile and leather substrates. Mauer only teaches fluorochemical leveling agents that are unlikely to provide water and/or oil repellency properties. Ward only teaches fluoropolymers based on vinyl fluoride and vinylidene fluoride, which are also unlikely to provide water and/or oil repellency properties. Furthermore, neither Mauer nor Ward teach or suggest compositions for making fibrous substrates such as leather and textiles oil- and water repellent.

Applicants have discovered that aqueous compositions combining a specific class of fluorochemical compounds with alpha-hydroxy acid esters results in a composition having unexpected and useful properties. Specifically, Applicants have discovered that good oil and water repellency properties and good stain resistance (comparable to those previously only achieved with a heat treatment step) can be obtained out of water-based formulations surprisingly without having to cure at elevated temperatures.

In view of the above, the claimed invention is unobvious and patentable over Mauer alone or in combination with Ward. Applicants therefore respectfully request that the rejection under 35 U.S.C. § 103(a) be withdrawn.

Concluding Remarks

It is submitted that the application is in condition for allowance. Reconsideration of the application is requested.

Respectfully submitted,

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By: /Lisa P. Fulton/

Lisa P. Fulton, Reg. No.: 55,195

Telephone No.: 651-733-1260

Office of Intellectual Property Counsel
3M Innovative Properties Company
Facsimile No.: 651-736-3833